

1. Plant Growth

1. **Seed Germination:** Test how quickly different seeds sprout.
2. **Soil Types:** Compare plant growth in different soils.
3. **Light Effects:** See how light affects plant growth.
4. **Watering Methods:** Compare different ways to water plants.
5. **Fertilizers:** Test organic vs. chemical fertilizers.
6. **Temperature Effects:** Observe how temperature changes affect plants.
7. **Hydroponics:** Grow plants without soil.
8. **Companion Plants:** See how planting certain plants together helps.
9. **Container vs. Ground:** Compare plant growth in pots and the ground.
10. **Seed Soaking:** Test if soaking seeds speeds up germination.

2. Soil and Compost

11. **Composting:** Create and use a compost pile.
12. **Soil pH:** Test and adjust soil acidity.
13. **Earthworms:** Study how earthworms improve soil.
14. **Soil Erosion:** Explore ways to prevent soil erosion.
15. **Soil Moisture:** Measure how different soils hold water.
16. **Homemade Fertilizers:** Make and test your own fertilizers.
17. **Mulching:** Compare plants with and without mulch.
18. **Soil Aeration:** Study how aerating soil helps plants.
19. **Organic Matter:** Add organic matter to soil and see the effects.
20. **Soil Structure:** Compare growth in different soil structures.

3. Pest Control

21. **Natural Pesticides:** Make and test natural pest repellents.
22. **Beneficial Insects:** Study insects that help control pests.
23. **Trap Crops:** Use certain plants to lure pests away.
24. **Homemade Sprays:** Make and test homemade insect sprays.
25. **Physical Barriers:** Use barriers to protect plants from pests.
26. **Neem Oil:** Test neem oil for pest control.
27. **Companion Planting:** Use plants that repel pests.
28. **Bird Feeders:** Attract birds to eat pests.
29. **Planting Timings:** Study how planting times affect pests.
30. **Disease Resistance:** Test different plants for disease resistance.

4. Sustainable Practices

31. **Water Conservation:** Try different ways to save water in gardening.
32. **Rainwater Collection:** Collect and use rainwater.

33. **Renewable Energy:** Use solar or wind power in gardening.
34. **Vertical Farming:** Grow plants in vertical spaces.
35. **Greenhouse Effects:** Study how greenhouses affect plants.
36. **Zero Waste Gardening:** Use zero waste techniques.
37. **Pollinator Gardens:** Grow plants that attract bees and butterflies.
38. **Crop Rotation:** Rotate crops to keep soil healthy.
39. **Urban Farming:** Start a small farm in the city.
40. **Eco-Friendly Packaging:** Use and test biodegradable packaging.

5. Animal Agriculture

41. **Chicken Coops:** Build and test different chicken coop designs.
42. **Manure Composting:** Compost animal manure.
43. **Beekeeping:** Start a small beekeeping project.
44. **Fish Farming:** Try raising fish on a small scale.
45. **Aquaponics:** Combine fish and plant farming.
46. **Animal Feed:** Compare different feeds for animals.
47. **Milk Production:** Study how milk is produced.
48. **Egg Incubation:** Test conditions for incubating eggs.
49. **Animal Behavior:** Observe different animal behaviors.
50. **Worm Farming:** Study benefits of raising worms.

6. Crop Production

51. **Corn Growth:** Test different methods for growing corn.
52. **Tomato Varieties:** Compare yields of different tomato types.
53. **Herb Gardens:** Grow and use herbs in cooking.
54. **Grain Milling:** Mill grains into flour.
55. **Root Vegetables:** Grow and harvest root vegetables.
56. **Beans:** Compare growth of different bean types.
57. **Vine Crops:** Study growth of vine plants like cucumbers.
58. **Berry Bushes:** Grow different types of berry bushes.
59. **Green Beans:** Test how spacing affects green beans.
60. **Squash:** Compare different squash varieties.

7. Technology in Agriculture

61. **Soil Sensors:** Use sensors to monitor soil conditions.
62. **Drones:** Use drones to check crop health.
63. **Automated Irrigation:** Set up automatic watering.
64. **Greenhouse Tech:** Use tech to control greenhouse conditions.
65. **Crop Apps:** Track crop health with apps.
66. **Data Logging:** Collect data on plant growth.
67. **Precision Farming:** Use precision tools in farming.

- 68. **Weather Stations:** Monitor local weather conditions.
- 69. **Plant Cameras:** Use cameras to monitor plant growth.
- 70. **Agro-Tech Gadgets:** Test new farming gadgets.

8. Environmental Impact

- 71. **Carbon Footprint:** Measure and reduce farming carbon footprint.
- 72. **Pollution Effects:** Study pollution's impact on plants.
- 73. **Waste Management:** Manage waste in farming.
- 74. **Soil Conservation:** Explore ways to conserve soil.
- 75. **Biodiversity:** Study the importance of plant and animal diversity.
- 76. **Water Quality:** Test how farming affects water quality.
- 77. **Green Practices:** Implement green farming practices.
- 78. **Climate Change:** Study how climate change affects crops.
- 79. **Land Use:** Evaluate different land use methods.
- 80. **Ecosystem Services:** Explore farming's impact on ecosystems.

9. Agriculture Economics

- 81. **Cost Analysis:** Compare costs of different farming methods.
- 82. **Market Research:** Study demand for various crops.
- 83. **Profitability:** Assess which projects are most profitable.
- 84. **Crop Rotation:** Analyze benefits of rotating crops.
- 85. **Organic vs. Conventional:** Compare costs of organic and regular farming.
- 86. **Community Gardens:** Study economic benefits of community gardens.
- 87. **Value-Added Products:** Create and sell products from crops.
- 88. **Farm Software:** Test farm management software.
- 89. **Supply Chain:** Explore the supply chain of farm products.
- 90. **Sustainable Investment:** Assess investment potential in sustainable farming.

10. Miscellaneous

- 91. **Flower Gardens:** Grow different types of flowers.
- 92. **Plant Science:** Conduct simple plant biology experiments.
- 93. **Seed Saving:** Save seeds from plants for future use.
- 94. **Indoor Gardens:** Grow plants indoors.
- 95. **Vertical Gardens:** Use vertical space to grow plants.
- 96. **Seasonal Crops:** Study how seasons affect crops.
- 97. **DIY Greenhouses:** Build a small greenhouse.
- 98. **Pollinator Habitats:** Create habitats for pollinators.
- 99. **Urban Gardens:** Grow food in an urban setting.
- 100. **Local Food Systems:** Study the benefits of local food systems.

11. Aquaculture

101. **Fish Tanks:** Create ecosystems in fish tanks.
102. **Aquatic Plants:** Grow plants that live in water.
103. **Pond Management:** Manage a small pond for fish.
104. **Water Quality:** Test water for fish farming.
105. **Algae Farming:** Grow and use algae.
106. **Fish Species:** Study different fish species.
107. **Shrimp Farming:** Try raising shrimp.
108. **Aquaponics:** Combine fish farming with plant growing.
109. **Water Filtration:** Test methods for cleaning water.
110. **Fish Nutrition:** Compare different fish feeds.

12. Agroforestry

111. **Tree Planting:** Plant trees and study their growth.
112. **Forest Gardens:** Create a forest garden.
113. **Shade Crops:** Grow crops under trees.
114. **Nutrient Cycling:** Study how trees and plants cycle nutrients.
115. **Agroforestry Benefits:** Explore benefits of combining trees and crops.
116. **Tree-Crop Interactions:** Study how trees and crops interact.
117. **Ecosystem Restoration:** Use agroforestry to restore ecosystems.
118. **Wildlife Habitat:** Create habitats for wildlife in agroforestry systems.
119. **Soil Improvement:** Test how trees improve soil.
120. **Agroforestry Design:** Design a small agroforestry project.

13. Urban Agriculture

121. **Rooftop Gardens:** Start a garden on a rooftop.
122. **Community Composting:** Set up composting in the community.
123. **Small Space Gardening:** Grow plants in small urban spaces.
124. **Urban Beekeeping:** Keep bees in the city.
125. **Hydroponics:** Grow plants using hydroponic systems.
126. **Container Gardening:** Grow plants in containers.
127. **Vertical Farming:** Use vertical space for farming.
128. **Green Walls:** Install walls with plants in the city.
129. **Urban Soil Health:** Improve soil in urban gardens.
130. **Urban Food Security:** Study how urban farming impacts food security.

14. Educational Projects

131. **Agricultural History:** Research the history of farming.
132. **Plant Identification:** Make a guide for local plants.
133. **Farm to Table:** Follow food from farm to table.
134. **Agricultural Innovations:** Study recent farming innovations.
135. **Crop Diversity:** Document different crop varieties.

136. **Sustainable Farming:** Learn about sustainable farming practices.
137. **Farm Machinery:** Study different farm machines.
138. **Plant Anatomy:** Create models of plant anatomy.
139. **Soil Types:** Educate about different soil types and uses.
140. **Global Farming:** Research farming practices in different countries.

15. Food Production

141. **Jam Making:** Make different types of jam.
142. **Bread Making:** Bake bread from scratch.
143. **Cheese Making:** Try making basic cheese.
144. **Herb Infusions:** Make and taste herb-infused oils and vinegars.
145. **Pickling Vegetables:** Pickle vegetables in different ways.
146. **Fermentation:** Make fermented foods like sauerkraut.
147. **Germinated Seeds:** Grow and use seeds that have just sprouted.
148. **Vegetable Juices:** Experiment with different vegetable juices.
149. **Edible Flowers:** Grow and use edible flowers.
150. **Fruit Preservation:** Preserve fruit by canning or drying.

16. Community Projects

151. **Community Gardens:** Start a community garden.
152. **School Farm:** Create a farm at school.
153. **Farmers' Market:** Organize a farmers' market.
154. **Agricultural Workshops:** Host workshops on farming.
155. **Food Drives:** Use garden produce for food drives.
156. **Plant Exchange:** Set up a plant exchange program.
157. **Educational Tours:** Offer tours of farms and gardens.
158. **Youth Agriculture Clubs:** Start a club for young farmers.
159. **Garden Events:** Cook with produce from the garden.
160. **Harvest Festivals:** Plan a harvest festival.

17. Waste Reduction

161. **Organic Waste Composting:** Compost kitchen scraps.
162. **Recycled Planters:** Make planters from recycled materials.
163. **Upcycled Tools:** Repurpose old tools for gardening.
164. **Waste Reduction:** Implement waste reduction in farming.
165. **Zero Waste Gardening:** Practice zero waste gardening.
166. **Plastic Alternatives:** Use alternatives to plastic.
167. **Food Scrap Gardens:** Grow plants from food scraps.
168. **Recycled Soil Amendments:** Use recycled materials to improve soil.
169. **Waste Education:** Teach about waste management.
170. **Composting Education:** Educate others about composting.

18. Science Experiments

171. **Plant Respiration:** Measure how plants breathe.
172. **Photosynthesis Rates:** Test how light affects photosynthesis.
173. **Soil Microbes:** Study microbes in soil.
174. **Plant Transpiration:** Measure how plants release water.
175. **Nutrient Absorption:** Test how plants take in nutrients.
176. **Growth Hormones:** Study the effects of plant hormones.
177. **Seed Dispersal:** Observe how seeds spread.
178. **Pollination:** Watch how plants are pollinated.
179. **Water Stress:** Test effects of water shortage on plants.
180. **Soil Temperature:** Study how soil temperature affects growth.

19. Innovation and Inventions

181. **Automated Watering:** Create automatic watering systems.
182. **Greenhouse Control:** Build systems to control greenhouse conditions.
183. **Crop Sensors:** Develop sensors for crop health.
184. **Eco-Friendly Pests:** Innovate eco-friendly pest control methods.
185. **Sustainable Packaging:** Design eco-friendly packaging.
186. **Farm Robotics:** Use robots for farm tasks.
187. **Energy-Efficient Greenhouses:** Design energy-saving greenhouses.
188. **Water Recycling:** Create systems to recycle water.
189. **Smart Fertilizers:** Develop fertilizers that release nutrients slowly.
190. **Plant Apps:** Create apps to manage plant health.

20. Seasonal Projects

191. **Spring Planting:** Plan and plant in spring.
192. **Summer Harvest:** Harvest crops in summer.
193. **Fall Preparation:** Prepare soil for winter and spring.
194. **Winter Gardening:** Grow plants in winter.
195. **Seasonal Pests:** Study how pests change with seasons.
196. **Holiday Plants:** Grow plants for holiday decorations.
197. **Winter Composting:** Compost during winter.
198. **Seasonal Crops:** Plan crops for each season.
199. **Temperature Effects:** Study how seasons affect growth.
200. **Seasonal Preservation:** Preserve seasonal produce.

Feel free to adjust or mix and match these ideas based on what you need